

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED

DATE: 10-JUN-2017 TIME: 1515 HOURS

2. OPERATOR: Energy XXI GOM, LLC

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K \$36,372
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
ON SITE AT TIME OF INCIDENT:

6. OPERATION:

4. LEASE: G01361

AREA: ST LATITUDE:

BLOCK: 26 LONGITUDE:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

5. PLATFORM: A

RIG NAME:

6. ACTIVITY: EXPLORATION (POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

7. TYPE:

- HISTORIC INJURY
- REQUIRED EVACUATION 1
- LTA (1-3 days)
- LTA (>3 days) 1
- RW/JT (1-3 days)
- RW/JT (>3 days)
- Other Injury

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC HISTORIC BLOWOUT
- UNDERGROUND
- SURFACE
- DEVERTER
- SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

9. WATER DEPTH: 55 FT.

10. DISTANCE FROM SHORE: 7 MI.

11. WIND DIRECTION:
SPEED: M.P.H.

12. CURRENT DIRECTION:
SPEED: M.P.H.

13. SEA STATE: FT.

14. PICTURES TAKEN:

15. STATEMENT TAKEN:

On June 10, 2017, an incident occurred on the South Timbalier 26-A Platform (OCS-G01361). Energy XXI GOM, LLC (Energy XXI) is the Designated Operator of Record. The platform is located seven miles from shore, with a water depth of 55 feet. The facility was installed in 1965 and has 21 well slots--sixteen drilled and one active.

At approximately 3:15 pm during normal startup operations, the Cooper gas compressor ran for approximately twenty minutes before shutting down due to a diesel air compressor problem. After two failed attempts to restart the compressor, the mechanic made adjustments between the magnetic pickup and the flywheel. Two attempts later, the compressor appeared to be starting. After approximately 2-3 seconds, the engine backfired, sending the scavenger box and debris airborne and igniting the paper filters in the filter housing. The fire was immediately extinguished, and the surrounding area was secured. The mechanic was standing next to the air box and was injured by some of the flying debris that contacted his chin and upper body. He was transported to Terrebonne General Hospital in Houma, Louisiana, for treatment (x-rays/stitches).

Following the incident, third party inspections revealed:

1. The compressor ignition timing was correct.
2. The Central Processing Unit (CPU) ignition was found in good working order.
3. No anomalies were found in the compressor power cylinders.
4. Although all twelve fuel valves failed the leak test, third party inspectors deemed this normal wear and tear. All fuel valves were rebuilt.

Upon determining that none of the above were causal factors, it appears the only plausible explanation for this event could be poor or improper gas purging techniques used during compressor start-up operations.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

The probable cause is poor or improper gas purging techniques used during compressor start-up operations.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

Energy XXI identified the following potential contributing factors in their Root Cause Analysis Report:

- "1. One of the possible factors that w[as] identified in the investigation was the logic in the compressor panel. The compressor starting logic set up at the time of the incident was set to allow the purging process to take place while the starters were [engaged] and rotating the engine. After the starters were turning the engine, the permissive was given to pull the fuel and ignition [reset relay]. [Due to] multiple starts[,] there is the possibility that the engine was not adequately purged prior to the fuel and ignition valves opening.
2. The possibility exist[s] that one or more of the power pistons were in a position that allowed communication between the intake and exhaust port allowing gas to migrate into the manifold and through the inner cooler. (Two Cycle Engine)
3. During the turbo charger tear down and inspection[,] the hot side turbine wheel was identified as a potential source of ignition since it showed evidence of damage from prior event."

20. LIST THE ADDITIONAL INFORMATION:

Energy XXI corrective actions:

1. The turbo charger and air induction system were rebuilt.
2. Fuel valves were rebuilt.
3. Panel logic was modified to increase the amount of purge time.

21. PROPERTY DAMAGED:

- *Intercooler on left-bank side
- *Air filter assembly
- *Turbo oil filter housing

NATURE OF DAMAGE:

- *Destroyed left bank intercooler housing
- *Burnt/deformed air filter assembly
- *Damage beyond repair to turbo oil filter housing

ESTIMATED AMOUNT (TOTAL): **\$36,372**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Houma District has no recommendations for the Regional Office.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

25. DATE OF ONSITE INVESTIGATION:

12-JUN-2017

28. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

26. ONSITE TEAM MEMBERS:

**David Benoit / Stephen Harris /
Terry Hollier / Keith Barrios /**

29. DISTRICT SUPERVISOR:

Bryan Domangue

APPROVED

DATE: **11-OCT-2017**